

REMARKS

There are now pending in this application Claims 1-36, of which Claims 1, 10, 11, 13, 14, 15, 25, 26, 27, 30, 31, 32, 35 and 36 are independent. Claims 14-36 are newly added. No claims have been cancelled.

In view of the above amendments and newly presented claims, and the following remarks, favorable reconsideration and allowance of the above application is respectfully sought.

In the outstanding Official Action, each of Claims 1-13 stands rejected under 35 U.S.C. § 103(a), as being unpatentable over Miyasaka, et al. (U.S. Patent No. 6,122,073) in view of Kamiya (U.S. Patent No. 5,974,232). In view of the above amendments and newly presented claims, the rejections are respectfully traversed.

Turning first to each of independent Claims 1, 10, 11, and 13, we note that each has been amended to more clearly distinguish Applicants' invention over the applied art of record. As amended, for example, the claim relates to, a digital copy machine such as illustrated in Figure 2 and having a hard disk 10 which can store a plurality of print jobs including a first job to be printed (namely the first image data) and a second job to be printed (namely the second image data) input after the first job in the first embodiment. With reference to step S510 of Figure 5, the digital copy machine performs a sequence (namely the first sequence) in which a print operation of the second job is started before a print operation of the first job is finished and, as illustrated in step S504 a sequence (namely the second sequence) in which the first operation of the second job is started after the print operation of the first job is finished, and when the machine perform the two types of sequences, if it is determined that the output of the first job has

been interrupted (see, step S503), the process in the first sequence and the process in the second sequence are able to be selectively executed via step S509 and if it is determined that the output of the first job is not interrupted (namely a yes in step S503), the second sequence is able to be executed.

Applicants respectfully submit that the none of Claims 1, 10, 11, or 13, as amended, are taught or suggested by the applied art of record.

Miyasaka, et al. provides that when a particular status of the printer changes (such as when the near end of a paper roll is detected) only the status is reported to the host and this printer mechanism status can include, for example, that the printer mechanism is in a standby mode in which data processing is paused because the cover is open, an error mode caused by a paper jam or that the near end of the roll paper has been detected. In short, the status that is reported in Miyasaka, et al. bears no relation to the image data to be printed.

Kamiya merely teaches aborting the image process of the image data and holding the image data in the storing means.

Neither of the applied references is understood to teach or suggest the prediction means for predicting whether or not to abort the outputting of the image data in accordance with an image data to be output and the status of the resources. Even the printer mechanism of Miyasaka, et al. is never able to predict the abort in accordance with the image data to be output and the status because the status is not related to the image data to be printed.

Applicants further submit that there is no teaching or suggestion in the applied references of the output control means as recited in each of the above claims and which performs one of a sequence in which a print operation of a second image data input after a first image data

is started before a print operation of the first image data is finished and a second sequence in which the print operation of the second image data is started after the print operation of the first job data is finished, and that the output control means is allowed to select either the first sequence or the second sequence when the interruption is predicted by the prediction means and to perform the second sequence when the interruption is not predicted by the prediction means.

For the foregoing reasons, Applicants respectfully submit that each of independent Claims 1, 10, 11, and 13 are patentable over the applied art of record.

New Claims 14, 15, and 25 relate in part to Figure 8. Figure 8 refers to the second embodiment and in step S801 there is a selection of whether shifting to step S510 (namely the first sequence) or shifting to step S504 (namely the second sequence).

With regard to Claims 14, 15, and 25, it is respectfully submitted that the applied references neither teach nor suggest a selector, adapted to select one of a first sequence for causing the print unit to start a print operation of the second job data before a print operation of the first job data is finished and a second sequence for causing the print data to start the print operation of the second job data after the print operation of the first job data is finished. Nor is there teaching or suggestion of a controller, adapted to cause the image processing apparatus to perform the sequence selected by the selector of the first sequence and the second sequence when status of the image processing apparatus is a status in which the print unit cannot finish the print operation of the first job data and to perform the second sequence of the first sequence and the second sequence when the status of the image processing apparatus is a status in which the print unit can finish the print operation of the first job data.

New independent Claims 26, 27, and 30 are also referred to at least in part in the second embodiment as depicted in Figure 8. As is evident, Figure 8 is a flowchart showing the detailed contents of the processing in step S509 of Figure 5. If it is determined that the output of the first job is interrupted (a NO in step S503), the process in step S510 (the first sequence) and the process in step S504 (the second sequence) are able to be selectively executed according to the result of the certification process in Figure 8. If it is determined that the output of the first job is not interrupted (a YES in step S503) the process in the second sequence is able to be executed without the certification process.

It is respectfully submitted that Claims 26, 27, and 30 are neither taught nor suggested by the applied art in that the applied art fails to teach or suggest a controller, adapted to cause the image processing apparatus to allow an execution of at least one of a first sequence for causing the print unit to start a print operation of the second job data before a print operation of the first job data is finished and a second sequence for causing the print unit to start the print operation of the second job data after the print operation of the first job data is finished when the status of the image processing apparatus is a first status in which the print unit cannot finish the print operation of the first job data and to allow execution of the second sequence when the status of the image processing apparatus is a second status in which the print unit can finish the print operation of the first job data.

Applicants further submit that the applied art fails to teach or suggest the certification unit as defined in the claims where a controller which causes the certification unit to perform the certification process when at least one of the first sequence and second sequence is performed in a first status and causes the image processing apparatus to allow the execution of

the second sequence without performing of the certification process by the certification unit in the second status.

Newly presented Claims 31, 32, and 35 are understood to be depicted at least in part in the third embodiment as shown in Figure 10. With reference to step S512 of Figure 10, if it is determined that a plurality of print jobs is stored in the hard disk 108 (a YES in step S512), the process shifts to step S503 and the process in the first sequence (step S508) and the process in the second sequence (step S504) are selectively executed. In step S512 of Figure 10, if it is determined that a plurality of print jobs are not stored in the hard disk 108 (a YES in step S512), the process is shifted to the second sequence.

Applicants submit that each of Claims 31, 32, and 35 is patentable over the applied art at least in that none of that art teaches or suggests a controller, adapted to cause the image processing apparatus to allow an execution of at least one of a first sequence for causing the print unit to start a print operation of the second job data before a print operation of the first job data is finished and a second sequence for causing the print unit to start the print operation of the second job data after the print operation of the first job data is finished when the status of the image processing apparatus is a first status in which the print unit cannot finish the print operation of the first job data and to allow the execution of the second sequence when the status of the image processing apparatus is a second status in which the print unit can finish the print operation of the first job data. Nor is there understood to be taught or suggested in that art a certification unit as defined in the above claims or a controller which causes that certification unit to perform the certification process when at least one of the first sequence and the second sequence is performed in the first status and causes the image processing apparatus to allow the

execution of the second sequence without it performing the certification process by the certification unit in the second status.

New Claim 36 is directed to an image processing apparatus with detection means, prediction means, and output control means. It is respectfully submitted that the applied art of record fails to suggest or teach at least the prediction means for predicting whether or not the printing of the image data is interrupted in accordance with an image data to be output and the status of the resources. In particular, and as noted above, the printing mechanism of Miyasaka, et al. is never able to predict the abort in accordance with the image data to be output and the status of the resources because the status is not related to the image data to be printed. As such, Applicants submit that Claim 36 is patentable over the applied art of record.

The remaining claims in the above application not heretofore discussed are dependent claims which depend from one of the above-discussed independent claims and are therefore patentable over the art of record for reasons noted above with respect to the independent claims. In addition, each recite features of the invention still further distinguishing it from the applied art. Favorable and independent consideration thereof is respectfully sought.

Applicants respectfully submit that all outstanding matters in the above application have been addressed and that this application is in condition for allowance. Favorable reconsideration and early passage to issue of the above application are respectfully sought.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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